



# MISSOURI. Conservationist

VOLUME 74, ISSUE 5, MAY 2013 • SERVING NATURE & YOU



# Conservation Priorities

As we round out the Missouri Conservation Department's 75th Anniversary, we are reminded of the firm foundation on which your Conservation Department has been built. A foundation built by

the hands and hearts of generations of conservation partners. A foundation built to serve nature and you. A foundation built from a base of core values that staff members and thousands of volunteers remain committed to as we plan for the future.

These core values include:

- Excellent public service is essential — we work to deliver more than is expected.
- All citizens are important — we treat citizens the way we would want to be treated.
- Missourians are partners to achieve conservation success — we communicate openly and look for ways to make it easier to partner.
- Fairness, objectivity, sound science, integrity, and accountability guide our actions.
- Employees are the Department's most important asset — we all work to advance conservation by being results driven, working as a team, serving as ambassadors for conservation, and living out the conservation ethic through our actions.

Based on these values, the Department works with you under five major goals (or areas of responsibility) to:

- Ensure healthy and sustainable forest, fish, and wildlife resources throughout the state
- Manage lands held in public trust and associated infrastructure to ensure continued benefit to citizens and to forest, fish, and wildlife resources
- Ensure sound financial accountability and transparency in all areas of operation
- Provide opportunities for active citizen involvement in services and conservation education in both rural and urban areas
- Engage partners at all levels (individual, community, county, state, federal) to enhance natural resources and effective delivery of conservation services



Under each of these five goals, the Department has identified specific challenges that will receive priority attention during the next 36 months. This commitment will help ensure long-term success by focusing staff and financial resources on high priority challenges.

Challenges facing forest, fish, and wildlife resources are diverse. Select examples include diseases, invasive species, balancing the needs of rare and

abundant wildlife, ensuring appropriate water allocations in streams, ensuring landscape-scale habitat management, and ensuring public access to resources. We also need to engage a more diverse and growing citizenry. It is an important and exciting time to be working to advance conservation. The Department's website offers a short video providing additional information on the Department's goals and challenges to receive priority focus. To view the video, visit [mdc.mo.gov/node/21507](http://mdc.mo.gov/node/21507).

Consistent with the Department's history, as challenges are faced and addressed, the role of citizens remains critically important. From resource user or landowner, to a conservation commissioner, citizens are the foundation of our state's successful conservation story. As a result, educating citizens in a way that instills a land-stewardship ethic — changing one's approach and mind-set — remains essential for long-term conservation success.

I offer a sincere "thank you" to all citizens who have been involved in conservation efforts. You have made a positive difference. I encourage all citizens to stay engaged. Your partnership efforts continue to make Missouri a national leader in forest, fish, and wildlife conservation.

A handwritten signature in black ink, reading "Robert L. Ziehmer". The signature is fluid and cursive, with a large, sweeping loop at the end.

Robert L. Ziehmer, director

## FEATURES

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*by Larry R. Beckett*

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*by Francis Skalicky, photos by Noppadol Paothong*

The community welcomes one of the largest urban reforestation efforts in Missouri history as a sign of rebirth.

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*by Candice Davis*

Biologists use telemetry to learn more about smallmouth bass.

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📷 500mm lens • f/4 • 1/125 sec • ISO 400

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## WHAT IS IT?

Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on Page 7.





## DIY GUIDEBOOK

Thank you for your excellent publications, the *Missouri Conservationist* and *Xplor*. The articles are informative and the pictures are beautiful.

Last summer, my then 4-year-old daughter and I started cutting out pictures of birds, flowers, and plants that are featured in the magazines. We put them in a binder, and now we have a pretty good little identification guide. She loves helping me identify the birds that visit our feeders and the plants we find on our walks.

*Mary Tanck, Pleasant Hill*

## TO HEAVEN AND BACK

I really enjoyed Brett Dufur's writing about the Upper Jacks Fork [March; *To Heaven and Back on the Upper Jacks Fork*]. Granted, that stream is beautiful, but his writing was exquisite. Very

vivid descriptions that put the reader right there. I smiled at the sycamore branch trying to snatch his river hat and at the turtles ambling the underwater gravel bed. His use of alliteration and onomatopoeia was refreshing. Some of the phrasing and sentiment was inspiring. His article caused me to start planning on exploring Jacks Fork and looking for his next article in the *Missouri Conservationist*.

*Deb Johnoff, via Internet*

## CATCH A TROUT

Thank you for the *Opening Day* story in your March issue. Larry Beckett motivated me to get out and go fishing on March 9. I did not make it to a trout park, but I did get a limit at Mckay Park in Jefferson City. Your cover photo was inspiring and the *Catch a Trout* piece on Page 9 was

perfect. The Missouri Department of Conservation makes Missouri a great state. Keep it up.

*Mike Miller, Columbia*

## GOT QUESTIONS?

Mr. Smith: I just want to thank you for your column in the *Missouri Conservationist*. "Ask the Ombudsman" is the first thing I turn to every time I receive this publication. I learn something new each time and I share it with my wife, son, and daughter. Very informative and interesting!

*Adam Burkemper, via Internet*

## CLOSE, BUT NOT QUITE

I am wondering if the shallow holes in the tree in your last issue [March; "Ask the Ombudsman"] may not have been made by the yellow-bellied sapsucker as it was a dead area of the tree. Also, the holes were not in the usual circumscribing line pattern. Maybe trial probes made by another of the woodpecker family?

*Robert H. Forister, Bloomfield*

*Ombudsman's Note: You are correct, there was a photo mix-up. The spacing and the fact that they are in dead wood both point to some other woodpecker than a sapsucker. Please see the accompanying photo for the correct pattern.*



### Reader Photo

### LUNCH DATE

Donna R. Hansen of Waynseville captured this picture of an American avocet at Blue's Lake, a small lake in the Rolla area where Hansen likes to take walks over her lunch hour. "As I began my walk this particular day, I immediately noticed a bird in the water close to the shoreline I had never seen before," said Hansen. "I was very excited! I spent my whole lunch hour photographing this beauty." A friend at the local chapter of the Audubon Society told Hansen that this was the first recorded sighting of the shorebird in Phelps County. "I have been lucky enough to photograph bald eagles flying over Blue's Lake, and I have also photographed blue herons and various ducks and geese there," said Hansen. "My husband and I love hiking, and I take my camera along whenever we are outdoors. We frequent many of Missouri's conservation areas and are truly grateful to live in a state with such beautiful resources."



## CORRECTION

In the April "Agent Notes" there was an incorrect line on catfishing regulations. Our first bullet point after "When setting trotlines, limb lines, or bank lines in public waters, there are several regulations that need to be followed," reads "Anyone over the age of 15 must possess a valid fishing permit, except Missouri residents 65 years or older..." This should have been (and was originally written correctly by Matt Spurgeon), "All persons must possess a valid fishing permit, except residents of Missouri 65 years or older."



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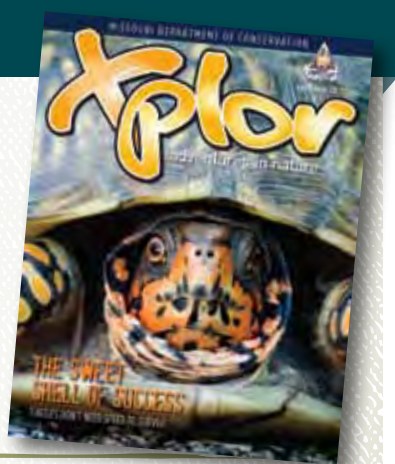
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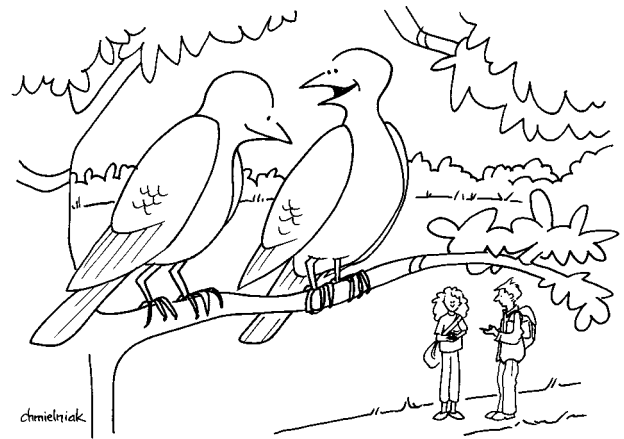
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# HUNTING AND FISHING CALENDAR

FISHING	OPEN	CLOSE
Black Bass from Ozark Streams	5/25/13	2/28/14
Bullfrogs and Green Frogs	Sunset	Midnight
	6/30/13	10/31/13
Nongame Fish Snagging	3/15/13	5/15/13
Paddlefish on the Mississippi River	3/15/13	5/15/13
	9/15/13	12/15/13
Trout Parks	3/01/13	10/31/13
HUNTING	OPEN	CLOSE
Coyote	5/06/13	3/31/14
Deer		
Archery	9/15/13	11/15/13
	11/27/13	1/15/14
Firearms		
Urban	10/11/13	10/14/13
Early youth	11/02/13	11/03/13
November	11/16/13	11/26/13
Antlerless (open areas only)	11/27/13	12/08/13
Alternative Methods	12/21/13	12/31/13
Late Youth	1/04/14	1/05/14
Groundhog	5/06/13	12/15/13
Pheasants		
Youth (North Zone Only)	10/26/13	10/27/13
North Zone	11/01/13	1/15/14
Southeast Zone	12/01/13	12/12/13
Quail		
Youth	10/26/13	10/27/13
Regular	11/01/13	1/15/14
Rabbit	10/01/13	2/15/14
Squirrels	5/25/13	2/15/14
Turkey		
Archery		
	9/15/13	11/15/13
	11/27/13	1/15/14
Firearms		
Spring	4/15/13	5/05/13
Fall	10/01/13	10/31/13
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see <a href="http://mdc.mo.gov/node/3830">mdc.mo.gov/node/3830</a>	

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, *the Fall Deer and Turkey Hunting Regulations and Information*, *the Waterfowl Hunting Digest*, and *the Migratory Bird Hunting Digest*. For more information visit [mdc.mo.gov/node/130](http://mdc.mo.gov/node/130) or permit vendors.



"We tweeted first."

## Agent Notes

### Feral Hogs



MISSOURI STATUTE DEFINES a feral hog as any hog that is not conspicuously marked by ear tags or notches and that is roaming on public or private land. Feral hogs are bad for Missouri. They can carry as many as 32 diseases and many of those can cross into other wild or domestic animals. Some diseases, including swine brucellosis, can even infect people through the handling of feral hog carcasses. Feral hogs will eat anything and compete directly with wildlife species such as deer and turkey for acorns. They will also consume every turkey egg in any nest they come across, and have been known to kill and eat fawns. Feral hogs can start reproducing in their first year and may have two to three litters of six to eight pigs. An area that has just 50 sows could easily see that population grow by 325 hogs in a single year.

The Conservation Department continues to work toward eradication of this invasive species that is threatening our wildlife, habitat, and agricultural crops. In Missouri, it is illegal to release hogs on public or private land that is not adequately fenced to contain them. Each hog released represents a separate offense. Multiple convictions for releasing hogs can lead to felony charges, with fines of up to \$5,000 and an additional \$1,000 per hog administrative penalty through the Department of Agriculture. Missourians are encouraged to report anyone suspected of releasing hogs through the Operation Game Thief Hotline, 1-800-392-1111.

*Brad Hadley is the conservation agent in Shannon County. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.*



ASK  
THE

# Ombudsman



Horsehair worm

**Q:** I found this strange worm in my parents' driveway after a night of rain. It is very thin and nearly twice as long as a night crawler. Can you identify it?

**A:** It sounds like a horsehair worm, sometimes called a hairworm or Gordian worm. They are related to nematodes and they do resemble living hairs, lacking a head or mouth. The worms can weave their bodies like a snake and tie themselves into knots. As adults they do not feed, but spend their time in running or standing water or on damp soil where they mate and lay eggs. When the eggs hatch, the larval forms can enter a variety of hosts as parasites, including beetles, cockroaches, crickets, grasshoppers, centipedes, and millipedes. When full grown, they exit the host near water to start the cycle over. Horsehair worms do not injure humans or plants but do help control populations of their host species. One of the strangest encounters is to kill a host insect and see the

parasitic horsehair worm come weaving its way out of the body of its dead host.

**Q:** Are the cedar trees that we have in our state native to the United States? I have always believed that they were not.

**A:** We have two native cedars in Missouri. Ashe's juniper is mostly restricted to a few counties of southwest Missouri along the White River drainage system. Eastern red cedar is found throughout Missouri and has become very common and weedy. You were probably thinking of eastern red cedar as nonnative due to its invasive nature, but it is native here. We don't have any non-native, invasive cedars in the state.

Eastern red cedar is much more abundant in Missouri today than it was in the past. Prior to European settle-

ment, wildfires were common on the Missouri landscape. Cedars are easily killed by fire until they reach a height where the growing tip is not burned. Fires kept cedars restricted to areas where fires couldn't reach them, such as steep, broken, rocky areas of bluffs and cliffs along Ozark rivers. The older cedars in Missouri today (many over 300 years old) are found mostly along our Ozark river bluffs. Because of the fire suppression in the past two centuries, eastern red cedar has proliferated, invading old fields, pastures, and other open areas. Birds eat the fleshy female cones (often called berries) and spread the seeds around the landscape.

**Q:** While walking on our property, my two young daughters found the remains of a terrapin. They wanted to take it home and paint it for a craft project. I wondered if it is legal to keep the turtle shell for such a project.

**A:** The term terrapin is usually used as another common name of one of our two box turtle species—the three-toed box turtle and the ornate box turtle. It is legal for Missouri residents to have up to five specimens of box turtle shells. It is prohibited to buy or sell them or to transport them from Missouri. The purpose of such regulation is to avoid any commerce in animal parts that might create an incentive for illegal harvest of wildlife.

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*Ombudsman Tim Smith will respond to your questions, suggestions, or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or email him at [Ombudsman@mdc.mo.gov](mailto:Ombudsman@mdc.mo.gov).*



## 1,438 Students Compete in Archery Tournament

The fifth annual Missouri National Archery in the Schools (MoNASP) state tournament, held March 22–23 at the University of Central Missouri in Warrensburg, drew 1,438 student archers in grades 4–12 from 74 schools across the state. The event drew more than 7,500 observers and supporters.

The top-scoring male student was Seth Pezley of St. Joseph Cathedral in Jefferson City with a score of 294 out of a possible 300. The top-scoring female student was Shelby Winslow of Summit

Lakes Middle School in Lee's Summit with a score of 287 out of 300. In addition to trophies, the two top scorers received Special Edition Genesis Bows.

Top-scoring teams and individuals, along with other teams and individuals who had qualifying scores, will go on to compete in the National Archery in the Schools (NASP) national tournament in Louisville, Ky., on May 10–11. A list of the almost 40 top-scoring teams and individuals who qualified for the national tournament is available at [mdc.mo.gov/node/21559](http://mdc.mo.gov/node/21559).

MoNASP is coordinated through the Missouri Department of Conservation and the Conservation Federation of Missouri in partnership with 290 participating schools and numerous supporting organizations throughout the state.

## Change for Quick Draw

Based on feedback from waterfowl hunters and analysis of past waterfowl seasons, the Conservation Department is implementing a minor change to "Quick Draw." For 2013 and 2014, the Quick Draw system for Grand Pass, Eagle Bluffs, and Otter Slough conservation areas will increase the "poor line" ratio from 20 to 25 percent of available hunting spots. The poor line is an on-site drawing for hunting spots held each morning during waterfowl season. No reservations are needed and hunters can just show up and vie for a poor line spot.

"For the past several years, 80 percent of hunting spots at the three Quick Draw areas have been randomly drawn and offered to applicants," said Conservation Department Wildlife Programs Supervisor Shawn Gruber. "The remaining 20 percent of spots, along with any unfilled spots from applicants, go to the poor line."

The Department expects that by shifting to a 25-percent poor line ratio for the three Quick Draw areas, waterfowl hunters drawn from the poor line will make up about 62 percent of hunters who actually go afield. Quick Draw hunters will fill only about 38 percent of hunting spots.

The poor line increase for Quick Draw areas will also require a shift from one hunting spot out of every five being allocated to the poor line to one spot out of every four.

Depending on wetland conditions, there is generally a maximum of 40 daily waterfowl hunting spots at Grand Pass, 20 at Eagle Bluffs, and 34 at Otter Slough.

Over the past three years, the Conservation Department gathered feedback from waterfowl hunters on Quick Draw through public meetings, online comments, a waterfowl hunter survey, and focus groups.

"The rationale for this change is based on hunter feedback," Gruber said. "During the first two years, we received more than 1,100 comments with the most common recommendation



being increasing the poor line ratio. In 2012 we conducted an online survey of waterfowl hunters. Of the nearly 3,700 hunters who responded, 54 percent wanted to increase the poor line ratio. It was not a significant majority so a modest adjustment seemed appropriate."

Also based on feedback from waterfowl hunters and analysis of past hunting seasons, the Department will not limit the number of times a waterfowl hunter can be randomly drawn per season under Quick Draw.

## Peregrine Falcons Are Back!

A pair of peregrine falcons has returned to a nesting box at Ameren Missouri's Sioux Energy Center in St. Louis. Ameren Missouri, in cooperation with the Conservation Department and the World Bird Sanctuary, are once again providing the public with an online view of peregrine falcons raising their chicks through a web camera. The nest can

be viewed on the Conservation Department's website at [mdc.mo.gov/node/16934](http://mdc.mo.gov/node/16934). The FalconCam is live for viewing from 7 a.m. until 8 p.m. seven days a week.

Conservation Department and World Bird Sanctuary experts will offer ongoing website commentary on what's happening in the nest. The FalconCam will be available until nesting activity is complete and the mother's young have left the nest.

The Conservation Department's Discover Nature Schools program for Missouri students in grades K–12 is providing FalconCam educational information. FalconCam offerings include fact sheets, classroom activities, and lesson plans to help Missouri students monitor FalconCam activities. Activities and lesson plans for grades K–2, 3–5, 6–8, and 9–12 were developed in partnership with the World Bird Sanctuary. Get more information online at [mdc.mo.gov/node/20703](http://mdc.mo.gov/node/20703).



Peregrine falcon



PEREGRINE FALCON: JIM RATHERT

## WHAT IS IT?

### Eastern Cottontail

*Sylvilagus floridanus*

On Page 1 and left is an eastern cottontail that can be found statewide. While they may venture into the open, cottontails usually don't go far from brushy or dense, weedy cover. The cottontail's usual home is a resting place or form concealed in a dense clump of grass, under a brush pile, or in a thicket. Providing good habitat is the key to increasing cottontail populations. Rabbits feed almost entirely on plants. During heavy snow cover, they eat buds, twigs, bark, and sprouts of shrubs, vines, and trees to survive. Breeding season is from mid-February through September. Many wild carnivores feed on cottontails. By converting plant food into animal matter, rabbits constitute an important link in the food chain of life. —*Noppadol Paothong*

## Vehicle and Equipment Auction

The Conservation Department will hold a public auction for various used vehicles and equipment on Saturday, June 1, starting at 10 a.m., at its Salem Maintenance Center, 1715 Hwy 32 West. The Conservation Department will be selling several dozen vehicles, along with trailers, boats, outboard motors, and other equipment. For a list of specific items, go online to [mdc.mo.gov/node/5585](http://mdc.mo.gov/node/5585). Those interested can also view auc-

tion items the day before at the Salem Maintenance Center from 8 a.m. to 5 p.m.

## Agents Snag Paddlefish Poachers

Known as the "Paddlefish Capital of the World," Warsaw, Mo., is a favorite area for many of Missouri's approximately 16,000 sport paddlefish snaggers because of its location along the Osage River. Agents with the Missouri Department of Conservation and U.S. Fish and Wildlife Service

discovered that the Warsaw area is also a favorite location for paddlefish poachers.

A cooperative undercover investigation by the two agencies recently resulted in more than 100 suspects from Missouri and eight other states being issued citations and/or arrest warrants for state and federal crimes related to paddlefish poaching. The effort included eight individuals indicted for federal crimes involving the illegal trafficking of paddlefish and their eggs for use as caviar.

The arrests and citations were the result of a multi-year joint undercover investigation by the two agencies involving the illegal commercialization of Missouri paddlefish and their eggs for national and international caviar markets. The undercover investigation ran during the spring 2011 and spring 2012 paddlefish seasons.

Missouri's official state aquatic animal, paddlefish can grow up to 7 feet long and weigh 160 pounds or more. They are valued as a sport fish for their size and for eating. Paddlefish are also valued for their eggs, which are eaten as caviar.

"The national and international popularity of Missouri paddlefish eggs as a source of caviar has grown dramatically in recent years," said Conser-



## Near-Record Non-Typical Deer Antlers

Near-record non-typical deer antlers were discovered in March on August A. Busch Memorial Conservation Area outside of St. Louis. Conservation Department biologists said evidence suggests the antlers were from the remains of a buck that had died in late summer or early fall 2012. They judged the buck to be 5 ½- to 6 ½ years old at the time of death.

As the result of high-quality deer management, the state of Missouri is a great place to find large bucks. In fact, the buck that still holds the world-record non-typical rack was discovered in North St. Louis County back in November of 1981. Known as "The Missouri Monarch", the deer was found already dead with antlers that landed an incredible Boone and Crockett score of 333 7/8. The inside spread of its rack measured 25 1/8-inches and the antlers weighed 11 1/4-pounds.

The rack found in March at the Busch Conservation Area didn't manage to topple the ruling Missouri Monarch. However, Conservation Department officials estimate the antlers will secure a place among the top five largest non-typical racks found or harvested to date in Missouri.

No permit is required to possess shed antlers. However, since these antlers were not shed and still attached to the animal's skull, the shed hunter was issued a disposition to legally possess the deer skull rack. This allows for keeping the skull rack but not reselling it, or any other commercial use.

For the moment, The Missouri Monarch still reigns supreme. But the "August A. Busch Monarch" proves that Missouri — and the St. Louis area itself — has plenty of big bucks out there to challenge the throne. — *story and photo by Dan Zarlenga*



Paddlefish



## DID YOU KNOW?

*We work with you and for you to sustain fish and wildlife.*

### Private Lake and Stream Assistance Last Fiscal Year

- » **We responded to 4,974 requests** for watershed, floodplain, riparian corridor, stream or lake management information, and/or technical assistance.
- » **We made 660 on-site visits.**
- » **On-site work included** 119 fish-population surveys, 14 renovations, and 40 fish-kill investigations.
- » **We held 12 workshops** for stream or lake management for 298 people.
- » **We participated in 28** watershed-management projects.
- » **For lake and stream assistance**, see Page 3 for regional office phone numbers or visit [mdc.mo.gov/node/19935](http://mdc.mo.gov/node/19935) and search for your county.

vation Department Protection Chief Larry Yamnitz. "This is a result of European sources of caviar having declined from overfishing of the Caspian Sea's once plentiful and lucrative beluga sturgeon, another species of fish known for its caviar."

Caviar is a delicacy created by preserving fish roe in special salts. About 20 pounds of eggs or more can be harvested from a large, pregnant female paddlefish. Retail prices for paddlefish caviar vary. A current common retail price is about \$35 per ounce. "Sport anglers may only catch two paddlefish daily and the eggs may not be bought, sold, or offered for sale," Yamnitz explained. "Extracted paddlefish eggs may not be possessed on waters of the state or adjacent banks and may not be transported. Paddlefish and their eggs may be commercially harvested only from the Mississippi River."

He added that through the undercover operation, agents were able to determine that paddlefish eggs harvested in Missouri were being illegally transported out of the state for redistribution.

Federal crimes tied to the poaching involve violations of the Lacey Act. The Act makes it a federal crime to poach game in one state with the purpose of selling the bounty in another state and prohibits the transportation of illegally captured or prohibited wildlife across state lines.

The Conservation Department and U.S. Fish and Wildlife Service worked with the Benton County Prosecuting Attorney's Office, the Benton County Sheriff's Department, and the U.S. Department of Justice on the investigation.

Identification of suspects in violation of state wildlife charges is pending legal filings. Copies of the federal indictments may be obtained from the U.S. Attorney's Office in Kansas City.

Yamnitz added that additional details about the undercover operation are vital to the investigation and prosecution of cases and therefore not available at this time.

### Get Weekly Fishing Reports and Annual Prospects

The Conservation Department offers a weekly fishing report from the first Thursday in April through September that provides general fishing conditions at selected lakes, rivers, and trout parks across Missouri. Get the report online at [fishing.mdc.mo.gov](http://fishing.mdc.mo.gov) and sign up to have it emailed to you

each week. Use this link to also see the Conservation Department's Fishing Prospects. This annual information is based on fish population sampling, creel surveys, and other research conducted on numerous lakes, rivers, and trout parks.

### Free Kids Fishing Days in May

Help kids get hooked on the thrill of fishing with free Kids Fishing Days at Conservation Department fish hatcheries and other participating locations. Kids Fishing Days events are designed to help families and youth groups learn about fish, fish habitat, and fishing techniques. Each event

provides fishing equipment and instruction, and most also provide prizes, gifts, and lunch.

Events locations include Conservation Department fish hatcheries at these four parks: Montauk State Park southwest of Salem on May 4 (573-548-2585), Bennett Spring State Park west of Lebanon on May 4, (417-532-4418), Maramec Spring Park east of St. James on May 18 (573-265-7801), and Roaring River State Park south of Cassville on May 18 (417-847-2430). For details on these and other Kids Fishing Days events, contact locations, local MDC offices (see Page 3), or visit [mdc.mo.gov/node/16243](http://mdc.mo.gov/node/16243).











# Mounting Your Own Turkey Tail, Beard, and Spurs

*Creating your own keepsakes  
is easy and satisfying.*

by LARRY R. BECKETT



**I** SCANNED THE DARK TIMBER, SEARCHING for the light-tipped tail feathers that I had seen only moments earlier. The taunting fan had last appeared at 60 yards, along with a thunderous gobble that left little doubt that this was a mature tom. Then it vanished.

I waited and watched, knowing he was in stealth mode, trying to decide if the hen decoy was to his liking. Then I caught movement out of the corner of my eye as he entered the clearing. He had made up his mind that this was the girl for him and was giving it all he had. Chest puffed out, tail feathers spread, beard dragging, spitting, and drumming. Despite the lack of reaction from the foam female, he wasn't letting up.

He strutted his way down the end of my gun barrel, and I squeezed the trigger.

### Field Care

Heading home, I knew the mounted tail, beard, and spurs would bring back memories of this hunt long after the turkey was consumed.



For the most part, taxidermy work should be left to the professionals. They are truly artists at what they do and require special equipment and processes. But mounting a turkey tail, beard, and spurs can be a quick, easy, and rewarding end to a hunt — and anybody can do it. You just need to follow a few steps and use one item available at your local grocery store.

The quality of a finished turkey mount begins in the field. Avoiding broken tail feathers is much easier than fixing them. A bird facing you in full strut looks like a bigger target, but this can be a lower-success shot and will likely result in damage to the fan and pellets in the meat. Wait for the bird to naturally drop his tail and stretch his neck, or cluck a few times to arouse his curiosity and aim for the spot where the neck skin stops and the feathers begin. Before leaving the field, gently smooth the tail feathers in place and wrap the bird in an orange bag or vest (both for safety and to prevent damage).

### The Beard

Once home, the easiest part of the bird to preserve is the beard. Remove it by pulling on the beard and cutting the base where it attaches to the body, leaving enough skin attached to hold it together. Liberally apply borax (available in the laundry section of most grocery stores) to the fleshy part of the beard. Then pour some borax into a small container and place the skin of the beard in it overnight.

### The Tail

The next step is to remove the tail. Hold the fan closed. Feel for the triangle-shaped base beneath the skin that connects the tail feathers to the body. Cut in front of this to separate the tail from the rest of the turkey. Err on the side of caution. It is better to leave too much skin on than not enough. Cutting extra off later is easy, gluing feathers back in is time consuming.

Lay the removed tail section on a hard, flat surface. With the edge of a knife, scrape any meat from the base of the quills without removing the connective tissue between them. When all the

**Lift on the beard to make cutting easier and then liberally apply borax to the base to ensure proper preservation.**





**Cut in front of the triangular-shaped base that is exposed when holding the tail feathers together.**

excess is removed, apply generous amounts of borax to the entire base. Rub it vigorously into every nook and cranny to increase the longevity of the mount and prevent rot and insects.

Now the tail must be held in shape to dry. Spread the fan out to a full strut so that the bottom feathers are parallel, or you might prefer a half strut. Whatever position you choose will be permanent, as moving them after they are dry is not possible. Place the fan onto a large sheet of cardboard and put a small pin, nail, or staple in front of each bottom feather to secure it. Carefully arrange and smooth out each tail feather. Cover the tail with another piece of cardboard and tape the two pieces together. Put in a location where it will not be disturbed. Drying should be complete in about seven days.

DEMONSTRATION PHOTOS: LARRY R. BECKETT





After carefully positioning the tail feathers to dry, you can turn your attention to removing and preserving the spurs.



### The Spurs

Once the more fragile beard and tail are taken care of, the spurs can be removed from the bird. Start by removing the leg at the knee joint to make it easier to work with. Then, cut through the leg with a hacksaw on each side of the spur, making the base as wide as you prefer. This will leave the spur attached to a hollow section of the leg bone. Remove the skin and any fleshy material from the outside and inside of the bone. The spur can be coated with polyurethane for a shinier finish or left natural. Run a string or thin strap of leather through the hollow bones.

### Displaying Your Work

After the tail's drying period, remove it from the cardboard and the beard from the container of

borax. Brush off any excess preservative. If you are mounting them in a wooden display panel (available at sporting goods stores), simply slide the fan into the slot on the panel. Most of them will also have a hole on the bottom for the beard. Coat the end of the beard with epoxy or hot glue and insert it into the hole in the panel.

There are many other ways to display the tail, beard, and spurs and that is the beauty of mounting your own. Whatever design you choose, each time you pass by that natural work of art hanging on the den wall, you will not only be reminded of the hunt, but also of the joy you had in preserving the memory. ▲

*Larry Beckett is a writer, photographer, and videographer from Bentonville, Ark.*





A mounted turkey tail, beard, and spurs is more than an attractive decoration; it tells a story for those who weren't there and brings back memories for those who were.







# AFTER THE STORM:

## A Joplin Update

The community welcomes one of the largest urban reforestation efforts in Missouri history as a sign of rebirth.

by FRANCIS SKALICKY • photos by NOPPADOL PAOTHONG







**Kelly Prater, above, has big hopes for her neighborhood's small trees.**

**K**ELLY PRATER'S FRONT-YARD OAK TREE IS far from tall and majestic. Small and lonely would be a better description of the solitary sapling that has staked its diminutive claim on an otherwise treeless lawn on the south side of Joplin. However, a drive through the neighborhood reveals Prater's sprouting oak isn't as alone as it appears to be. Many neighboring yards are adorned with similar-sized young trees in the beginning stages of growth. Collectively, these trees are encouraging signs that Joplin's storm-battered urban landscape, and the city as a whole, is on the road to recovery.

"The trees will make this area look like a home again," Prater says.

Prater's sapling, along with the two in her backyard and those in her neighbors' yards, are

among the more than 8,100 donated trees that have been planted thus far in one of the largest and most ambitious urban reforestation efforts in the state's history. The goal is to restore the forestry component to an area that was destroyed by the May 22, 2011 tornado. This multi-agency effort includes the City of Joplin, Missouri Department of Conservation, Forest ReLeaf of Missouri, a number of local, state, and federal entities, and many civic groups and individual volunteers. Trees are being planted in Joplin and Duquesne, a small community east of Joplin that also experienced significant storm damage.

### Extensive damage

The EF5 multi-vortex twister reached a maximum width of more than a mile as it cut its destructive swath through the city on a Sunday afternoon. The storm caused 161 deaths, 1,100 injuries, and approximately \$2.8 billion in property damage.

Recovery from this tragedy has been difficult, but ongoing. From the outset, storm-affected residents and city officials were in agreement that tree planting was a necessary part of the community's recovery plan, according to Joplin Planning and Community Development Manager Troy Bolander.

"I believe there are a couple of reasons why residents directly affected by the tornado have been so enthusiastic about the reforestation of their neighborhoods," Bolander says. "First, it helps create a sense of normalcy of how things looked prior to the tornado. Second, the replanting of trees really does signify the rebirth of our community."

### Clearing and cleanup

In many places, the first step toward recovery was removal. Department of Conservation foresters, contract foresters, and volunteer arborists pooled their efforts with U.S. Forest Service Urban Forestry Strike Team personnel to assess damaged trees and do a tree inventory. When the cutting, clearing, and counting were finished, they determined that the city had lost between 15,000 and 20,000 trees.

"After the debris was removed, the path of the tornado looked like a 6-mile-long airport runway," Bolander says.





From the outset, it was obvious that putting trees back onto this wrecked landscape—like all other aspects of the city’s recovery efforts — would be no small task. An urban reforestation effort of this magnitude had never been attempted before in the state, and there are few references for disaster-driven urban forestry recovery plans.

“In these types of situations — due to city location, city size, event type and severity, city resources, available volunteers, and many other factors — there is no standard response to

replanting efforts,” says Department of Conservation Urban Forestry Coordinator Nick Kuhn. “However, certain themes carry across all factors and each urban forest manager must choose to work within their resources.”

### **Coordinating resources**

“Community Forestry programs have been an important part of the Department since the 1960s,” says Lisa Allen, Department of Conservation Forestry Division chief and state forester. “As a matter of fact, we were one of the first state

**Ric Mayer, community forestry recovery coordinator, instructs Boy Scout volunteers from Leawood, Kan., in tree planting.**





forestry agencies in the nation to dedicate a full-time position to urban and community forestry. [MDC currently has eight urban foresters.] Our community forestry program has grown significantly over the past 20 years due to the expansion of urban areas in Missouri, which is creating increasing stress on many urban natural resources, including trees.”

One of the steps the Department of Conservation took for the Joplin project was to create the position of community forestry recovery coordinator, a two-year term position focused solely on the city’s tree recovery. Ric Mayer works with the Department’s Joplin Urban Forester Jon Skinner and other civic, state, and federal personnel. Mayer’s position is being funded through a two-year grant from the U.S. Forest Service.

Other entities were also involved in Joplin’s forestry recovery. The Department of Natural





Resources' Division of State Parks made up to \$400,000 available through the Land and Water Conservation Fund and the Recreational Trails Program to redevelop two community parks. Donation boxes were placed at all Missouri State Parks and historic sites and those funds were used to purchase and plant trees in Joplin-area parks. The Missouri Department of Economic Development authorized \$155,000 in Neighborhood Assistance Program tax credits for Forest ReLeaf for a total of \$310,000 in contributions. The recovery strategy also called for a portion of the more than 1,000 workers hired through the Disaster Recovery Jobs Program to assist with Joplin tree-planting efforts. Trees were secured through the efforts of a variety of sources including Southwest Missouri Resource Conservation and Development Council, Silver Dollar City, Missouri Master Naturalists, the Federated Garden Clubs of Missouri, and NASCAR. In

October 2011, Governor Jay Nixon traveled to the Joplin area to host a tree-planting ceremony at Duquesne Elementary School.

A major contributor to Joplin's tree recovery has been Forest ReLeaf of Missouri, an independent, nonprofit organization dedicated to inspiring volunteer efforts in planting and caring for trees and forests in communities. To date, Forest ReLeaf has contributed 3,000 trees and has added the capacity to grow 5,000 more trees at its nursery in St. Louis County to help meet the ongoing reforestation needs of Joplin.

"Forest ReLeaf has always provided trees to assist with reforestation efforts after natural disasters," says Executive Director Donna Coble. "But the sheer scope of tree loss in Joplin, coming on the heels of major tornadoes in St. Louis County that spring, led us to rethink our role post-disaster and, as a result, expand

**Trees were planted by both individuals and organizations. The Rooting for Joplin event in May 2012 (top left and below) brought together community volunteers, Boy Scouts, Future Business Leaders of Missouri, and many others.**







**The new trees will also provide visual buffers, sound barriers, erosion control, and wind breaks (above).**

our capacity to meet the long-range restoration needs in communities like Joplin.”

The Southwest Missouri Resource Conservation and Development Council (RC & D) has also had a significant role in this project.

“The RC & D mission is to identify a need in resource conservation, unique development issues as well as other needs of our citizens,” says Kathryn Braden, chair of the Southwest Missouri RC & D. “Then the goal is to bring the need and the solution together. Our motto is ‘Making things happen.’ Obviously, Joplin had a need and replanting the city’s trees would give the population comfort and hope.”

### **Planting hope**

The tree plantings that began in the winter of 2011-12 were conducted in various fashions. Some were organized events that placed a number of trees in the ground in a single day. Other plantings were individual efforts by residents who had received trees through special application processes set up by the city governments of Joplin and Duquesne. The young trees dotting the landscape with increasing frequency gave local residents visions of what they would get in the future and, at the same time, provided clear reminders of what they lacked in the present.

“With the hot summer we experienced last year [2012], you really noticed the extreme

temperatures and wind in the residential neighborhoods and commercial areas that were missing trees,” Bolander says. “We also noticed an increase in calls to our office concerning noise complaints. The trees in place prior to the tornado were acting as a noise barrier between land uses that were incompatible between residential and commercial properties. With the trees gone, there was nothing to deflect the noise.” Because of these observations, Joplin’s city government is in the process of updating the city’s comprehensive plans and ordinances to promote the planting of native vegetation and trees. Bolander says these steps will not only improve the visual appearance of Joplin, but will also provide visual buffers, sound barriers, erosion control, and wind breaks to urban spaces. These are good examples of how conservation pays by enriching our economy and quality of life.

It’s not that Joplin wasn’t tree-savvy prior to the tornado. A month before the tornado hit (April 2011), the city received Tree City USA honors for the fourth straight year. (The city earned this honor again in 2012.) Tree City USA is a nationwide urban forestry conservation program sponsored by the Arbor Day Foundation in cooperation with the USDA Forest Service and the National Association of State Foresters. In Missouri, the program is





administrated through the Missouri Department of Conservation.

However, Allen says good urban forestry management, like other sound conservation practices, is an ongoing education. Evidence of Department of Conservation urban forestry efforts can be found in cities of varying sizes across the state, and all are examples of how the Department works with people and for people to sustain healthy forests, fish, and wildlife.

“Our mission is to encourage communities to invest in comprehensive community forestry programs such as Tree City USA before a crisis occurs,” says Allen. “A healthy and diverse community forest is much more resilient during catastrophic events and more likely to be sustainable for the future. In addition, creating public awareness of the value trees provide socially, economically, and environmentally to our communities is imperative to quick and efficient recovery of the community forest following a major storm event.”

### Work in progress

The reforestation of Joplin is still a work in progress. Bolander says the city, with support from the Department of Conservation, is currently finalizing an aggressive tree-planting program that will be funded with disaster funds that have been received from the Department of

Housing and Urban Development. Joplin’s city council and city manager have allocated \$2 million of these funds to purchase and plant more than 6,300 trees in the storm-damaged area.

Mayer says, even if no more donations come in for residential trees, Joplin can expect to plant 2,000 right-of-way trees each year through 2017. If donations for home trees continue, he says it’s hard to estimate the number of residential plantings that could take place in the coming years. Though the multi-organization, multi-stage nature of Joplin’s tree recovery project has made it difficult to put a cost estimate on the effort, Mayer says it’s easy to estimate its value.

“A house is not a home until people make it so,” he says. “When we plant trees, we are certainly recovering, getting ourselves and the landscape healthy.”

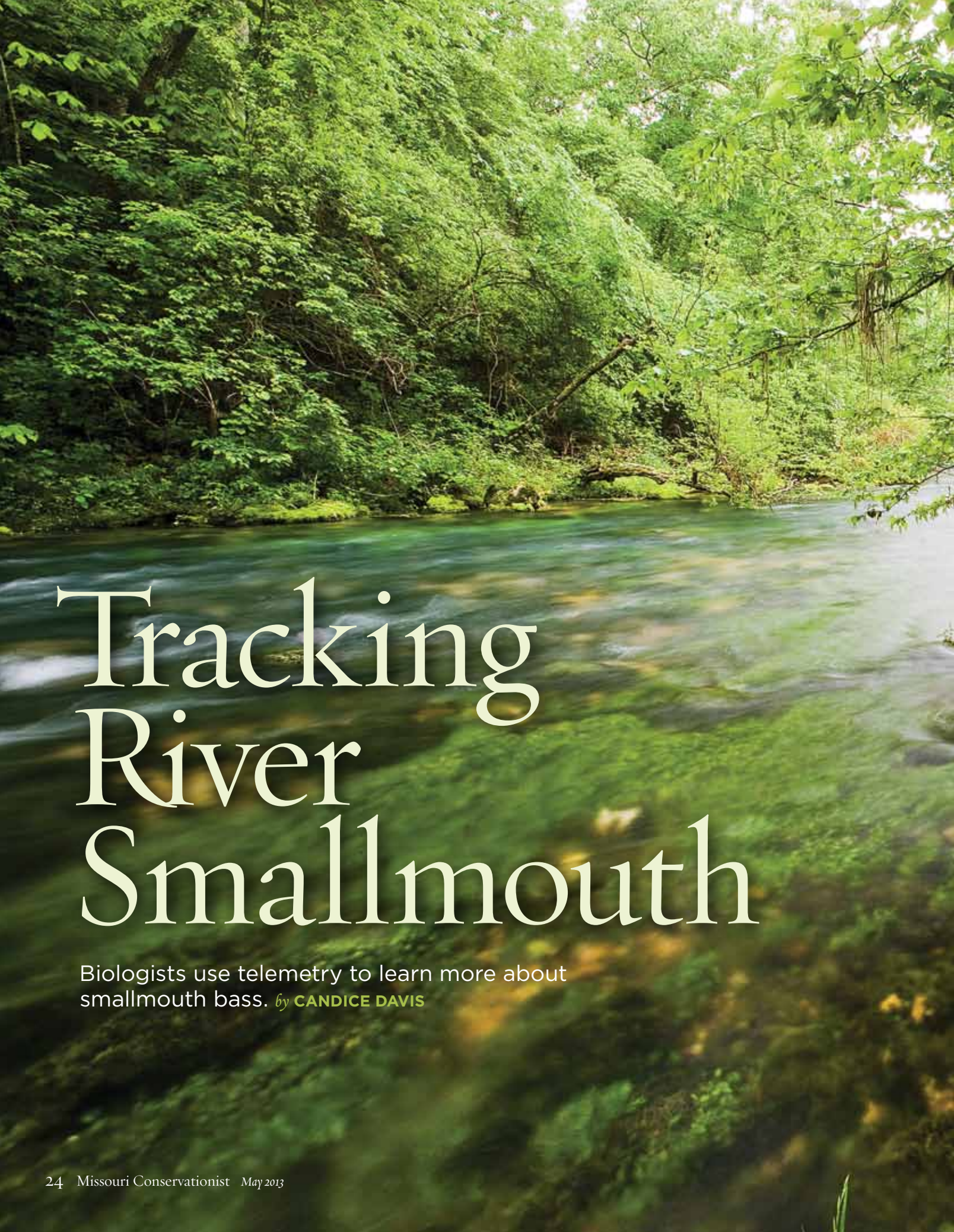
“We all have memories of our families that are tied to our natural surroundings,” he adds, “how our sisters played in the shade of the corner maple tree, how the wild cherries stained our hands. A lot of good times are remembered in the shade of an old oak tree. Those memories are the basis for living good times in the future.” ▲

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*Francis Skalicky is the media specialist for the Missouri Department of Conservation’s Southwest Region. He lives in Springfield.*

**Building a healthy and diverse community forest is important for sustainability (above).**





# Tracking River Smallmouth

Biologists use telemetry to learn more about  
smallmouth bass. *by* **CANDICE DAVIS**





Smallmouth bass thrive in cool, clear Ozark streams. Smallmouth bass research is helping to make Missouri a great place to fish, and enriching our economy and quality of life.

DAVID STONNER





**(Above and right) External tags on smallmouth bass provide anglers with a specific fish number and Conservation Department contact information. Information reported helps improve our understanding of smallmouth bass movement patterns and angler harvest.**

**T**HE SMALLMOUTH BASS (*MICROPTERUS dolomieu*) is one of Missouri's most popular game fish. Biologists from the Missouri Department of Conservation, National Park Service, University of Missouri, and Missouri State University are conducting separate, but complementary, studies on the species in order to better manage its habitat and regulate harvest.

Smallmouths are found predominantly in cool, clear Ozark streams and large reservoirs in the Ozarks, but also sparingly in the upper Mississippi River and its principal prairie tributaries. They thrive in clear streams with silt-free rock or gravel bottoms near riffles away from the main current. Smallmouth bass are generally not found in the northwest or north central portion of the state or in the Bootheel.

With such a far-ranging study subject, citizen participation and a multi-agency effort ensures a solid approach to studying this popular fish. Monitor-

ing techniques like telemetry (using equipment to record and transmit data from a distance), and tagging will help biologists monitor fish movements and behavior. Three different types of tags were used in these studies: harvest-data tags (collected and reported by anglers), radio transmitter tags (monitored at intervals by scientists along the waterways), and temperature tags (recording tags collected by scientists). Not all tags were used in each study. Biologists use the information collected to help make management decisions for the species.



TOP: DAVID STONNER; BOTTOM: JIM RATHERT



## Department of Conservation Study

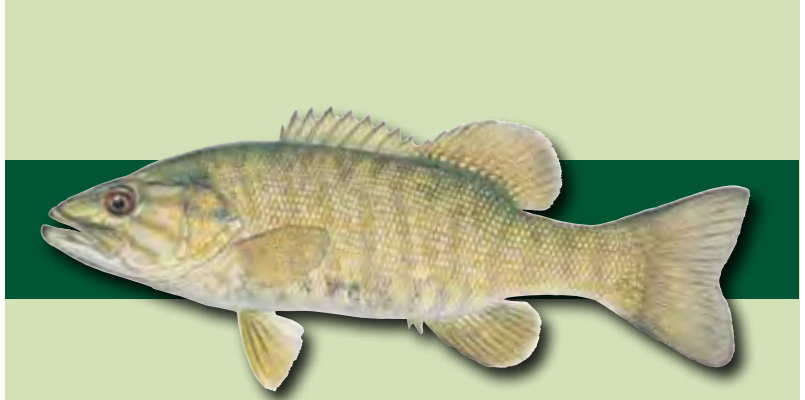
The Department of Conservation tagged smallmouth bass in the Castor, Black, and Current rivers, the North Fork of White River, and Courtois Creek, incorporating various sizes of waterways. Fisheries management biologists for the five streams affixed the external harvest tags to the wild-caught fish. Anglers were asked to report where and when they caught tagged fish and whether they were kept or released. They also provided measurements of the fish.



In a complimentary study, the Department also surveyed angler opinions by mail. This study gathered angler attitudes and opinions and estimated effort spent fishing for smallmouth bass in Missouri streams.

Jennifer Gironde, Department of Conservation fisheries management biologist and chair of the Smallmouth Bass Working Group, is coordinating the studies on smallmouth bass harvest rates and the angler mail survey. Gironde says the group is learning more about the fish's life history and has gotten an updated depiction of smallmouth anglers. (Visit the Department's Smallmouth Bass Management page at [mdc.mo.gov/node/5857](http://mdc.mo.gov/node/5857) to view the full Smallmouth Bass and Rock Bass Fishing survey and more.)

"We need to ensure that our smallmouth bass fishing regulations are appropriate for providing quality fishing experiences for all Missouri stream anglers," Gironde said. "Appropriate regulations entail that we understand where and how smallmouth use our streams and where and how anglers use smallmouth bass."



### Fun Facts

**Small Fin:** The smallmouth bass was given the scientific name *Micropterus dolomieu* by the French naturalist Count Bernard Germain Etienne De La Ville Lacépède. *Micropterus* is Latin for "small fin." The second name, *dolomieu*, was after M. Dolomieu, a French mineralogist for whom dolomite, a rock type, is also named.

**Nicknames:** Smallmouth have a number of local names. They include: brown bass, brownie, bronze back, green trout, jumper, Oswego bass, redeye bass, river bass, and smallie.

**The Unbass:** The smallmouth bass is actually a member of the sunfish family (one of the largest freshwater sport fish families). Smallmouth are also grouped with the largemouth and spotted (Kentucky) bass, which are collectively known as black bass.

**Cool Fish:** Smallmouth bass shun waters with temperatures that commonly exceed the mid-80s. Temperatures over 90 degrees can be lethal. Smallmouth bass also need a great amount of dissolved oxygen. A dependable stream flow, streamside shade and a modest current are also important to riverine smallmouth bass.

**Spring Spawn Hazards:** Research on smallmouth bass has shown no relationship between the number of spawning fish and the success of the spawn. The strength of the year's hatch depends solely on water conditions — in particular, a sudden cold snap or muddy floodwaters can kill eggs and fry.

**Tail Fin I.D.:** The tail fin on young smallmouth is distinctly tri-colored with a black vertical bar separating the yellowish fin base from the whitish fringe along the rear margin of the fins.

**Follow the Feeder:** An interesting habit of smallmouth bass is to follow a large turtle or sucker as they dig or root along the bottom, pouncing on any insects or crayfish disturbed by the feeding activity.

**18-Year-Old Fish:** Smallmouth bass have a maximum life expectancy of about 18 years; however, only a few ever live even half that long.

**Old Fish:** It can take 8–10 years for a smallmouth to reach 18 inches long in Ozark streams.

**For the Record:** The current Missouri state record is 7 pounds, 2 ounces, caught in 1994 from Stockton Lake.





**(Above)** Biologists track radio-tagged smallmouth bass on the Current and Jacks Fork rivers using a directional antenna.

**(Right)** Biologists implant a radio tag into a smallmouth bass from the Current River. A water pump supplies water over the gills of the fish during surgery, although surgeries typically last less than four minutes.

### University of Missouri Study

The University of Missouri is conducting telemetry studies to learn more about smallmouth behavior.

Temperature tags that are surgically placed inside the fish were used in this study to record the temperature the fish experienced at set time intervals. “These tags tell us if the fish are using warmer or colder water than we expected them to,” says Craig Paukert, leader of the Missouri Cooperative Fish and Wildlife Research Unit at the University of Missouri. “We want to understand how fish growth may change if the climate changes.”

“Working with other agencies enables us to easily share ideas about how to do the study and what the results mean,” says Paukert. “We help each other collect data and share equipment, and we can plan our studies to maximize the knowledge we gain while minimizing duplicate efforts.”

### National Park Service Study

Complementing the studies conducted by the Department of Conservation and the Univer-

sity of Missouri is the National Park Service study on how large springs influence aquatic life in adjacent streams.

Hope Dodd, of the National Park Service, and Mike Siepker, a resource scientist with the Department of Conservation, conducted a fish telemetry study using surgically implanted radio transmitter tags at Big Spring along the Current River to document the use of springs by



PHOTOS COURTESY OF THE NATIONAL PARK SERVICE



smallmouth bass and the timing of their movement into and out of springs. Their group tagged and tracked 30 fish for a year, documenting the temperature and habitat used by smallmouth bass within the river and the spring.

Dodd says that the telemetry study data will help biologists understand the timing of movement and use of springs and river habitats by smallmouth bass, a fish species whose distribution and abundance in the Ozarks has declined, due in part to increased water temperatures over the years.

In addition to the main study, a Missouri State University graduate student completed a 24-hour radio telemetry study of some of the smallmouth bass tagged in the river. This provided information on how much movement these fish exhibit over a 24-hour period, including the specific habitat that they selected.

“Combining the temperature data with the smallmouth bass telemetry work, we can assess the importance of springs in regulating water temperatures in the river and determine the importance of springs as refuges for fishes that require cooler temperatures,” says Dodd.

## Combined Findings

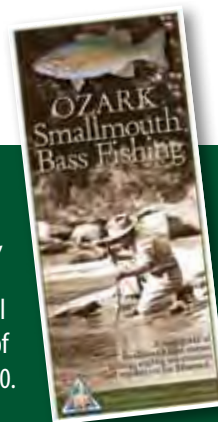
Although these studies are different, their combined results will give biologists a better picture of smallmouth habits and management needs.

Findings from all three studies are interesting. From the temperature data, the group learned that each spring has a relatively constant temperature throughout the year, but not all springs have the same average temperature. From the radio telemetry studies, they found that the timing of movement from Big Spring into the river was influenced by temperature. Smallmouth bass inhabited the warmer water of Big Spring in late winter, and moved into the river once river temperatures warmed to similar temperatures of the spring. By late fall, when river temperatures cooled below that of Big Spring, fish began returning.

This is just a sampling of the data from these studies. For more interesting facts, see the sidebar Smallmouth Bass Study Findings (to the right). For more information about these studies, contact your regional Department of Conservation office (phone numbers on Page 3). Also, be sure to check out our Smallmouth Bass

Fishing page at [mdc.mo.gov/node/5853](http://mdc.mo.gov/node/5853) for great tips and tricks and fishing locations. ▲

*Candice Davis is the media specialist for the Missouri Department of Conservation's Ozark and Southeast regions. She lives in Jackson.*



### Ozark Smallmouth Bass Fishing Map

For a free map guide of smallmouth bass stream fishing, angling information, and regulations for Missouri, email our publications staff at [Pubstaff@mdc.mo.gov](mailto:Pubstaff@mdc.mo.gov), or mail your request to Publications, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180.

### Find MO Fish App

This free phone app shows you a map of Missouri with the locations of public boat ramps to the major lakes, rivers, and streams of Missouri. The map also shows you the exact location of underwater fish structures the Missouri Department of Conservation has established over the years. These fish-attracting structures act as habitat for fish. With the geo-location feature, you can guide your boat right up to your favorite fish attractor and start fishing. Try it now and get hooked on fishing in Missouri. Visit [mdc.mo.gov/node/15421](http://mdc.mo.gov/node/15421) for links or visit your Android, Blackberry, or iTunes store to download.



### Buy Permits Online!

See our list of available fishing permits and buy yours online at [mdc.mo.gov/fishing](http://mdc.mo.gov/fishing). Fishing permits, unless noted otherwise on the permit itself, are valid from the date of purchase through the last day of February. Permits may be printed and used immediately.



### Smallmouth Bass Study Findings

- ▶ The majority of smallmouth bass were harvested early in the season.
- ▶ Wade/bank fishing is the most popular method, followed by float fishing, and then powerboat fishing.
- ▶ 82 percent of anglers who responded fish for smallmouth bass.
- ▶ High water and warming water temperatures triggered smallmouth bass movement in the Current River.
- ▶ The fish preferred deeper waters of 5 feet or more.
- ▶ Open water, logs, and boulders are used at different times of the day and year.
- ▶ The species left Big Spring when river and spring temperatures were similar.



## Yellow-Crowned Night Heron

*A graceless moment provides the perfect opportunity to capture the full elegance of this rare Missouri resident.*

I WATCHED THE heron as it began to make its move from a floating log. Its head dropped almost imperceptibly toward the lake surface. I moved ever so slowly myself to make some final camera adjustments in the harsh sunlight. Somewhere below the waterline a crayfish was short for the world. The gangly bird was a yellow-crowned night heron, a deft hunter of pincered prey. But things didn't go quite as smoothly as either of us expected, and the heron's momentary loss of grace provided a golden opportunity.

As the heron made its final strike, it slipped and fell in the lake, becoming fully submerged. Yellow-crowned night herons are quite capable of recovering from submersion, but diving isn't a typical component of their hunting approach. The original plan was to simply pluck the crayfish from the water with its long bill. When the frantic bird surfaced and began scrambling back onto the log, I was impressed to see that it hadn't lost the crayfish in all the commotion. Safely back on the log, the heron's first order of business was to swallow its hard-won meal. Next, I beheld a whimsical wildlife moment I'll never forget.

The yellow-crowned night heron (*Nyctanassa violacea*) is a medium-sized, bluish-gray heron with a black face and bill, white cheeks, and large, reddish-orange eyes. Its name comes from the white strip on its crown that is tinged with yellow during the breeding season. A trailing plume originates at the back of the crown and falls across the neck of adults. The yellow-crowned night heron has longer legs and a less stocky figure than its closest counterpart, the black-crowned night heron, and a friendlier demeanor in the presence of other birds, based on my observations. Both are considered nocturnal, hence their names, but I often observe night herons feeding in the middle of the afternoon.

Yellow-crowned night herons are considered rare summer residents in Missouri, and they usually nest near streams and wooded wetlands in small colonies high in surrounding trees. They are frequent visitors to St. Louis' Forest Park where I often photograph them, but I've also spotted them feeding along the Meramec River. Crustaceans of all kinds are the preferred prey of yellow-crowned night herons across their range, but in Missouri they usually forage on crayfish.

Soaked and disheveled from its errant hunt, the heron began to spread its huge wings and cupped them toward the sky. It rotated on the log until it was pointed directly toward the sun with its feet positioned one in front of the other like those of a runway model. Amused by the bird's behavior, it took me a moment to realize that it was simply positioning itself to dry its plumage most effectively. Once it settled into its final stance, the lithe but cartoonish-looking bird turned its head toward the bank and gave me an annoyed expression. I did my best to capture that expression with my camera and returned a look of great appreciation for the heron's fascinating display.

— Story and photo by Danny Brown

📷 300mm lens • f/6.3 • 1/800 sec • ISO 200

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Visit [mdc.mo.gov/node/73](http://mdc.mo.gov/node/73) to learn more about Missouri's plants and animals.*









## Castor River Conservation Area

*Explore this Southeast Missouri area's abundant forests and the state's deepest natural pond using 19 miles of multiuse trails.*

IF YOU PLAN to be in southeastern Missouri this spring, be ready to find an array of natural wonders hidden among the trees of Castor River Conservation Area (CA). This Bollinger County area features 9,491 acres of forests and fields that are home to abundant wildlife and one designated natural area.

Named for its dominating feature, Blue Pond Natural Area highlights a special aspect of Castor River CA. At about 66 feet, Blue Pond is the deepest natural pond in Missouri; its depth and immensity make it unlike any other sinkhole in the state. Accompanying Blue Pond are four permanent streams: Castor River, Grassy Creek, Trace Creek, and Pond Creek. The latter, a spring-fed creek formed in part from the spring that created Blue Pond, leads to several spring-fed pools before joining the Castor River.

A variety of wildlife includes deer, turkey, salamanders, and terrapins. Bird watchers will be pleased to find pileated woodpeckers and wood thrushes.

Visitors can explore the area's wildlife and natural features on foot, bicycle, or horseback using a 19-mile trail system, easily navigable with an interconnected color-coding system. A 9-acre lake offers fishing for bass, catfish, and sunfish, while hunters can search the woods for deer, turkey, and squirrel in season. Castor River CA's 12-position shooting range provides single-projectile target practice at 25-, 50-, and 100-yard distances.

Castor River CA's active timber-management program works to improve and maintain quality in the area's plentiful forests. Using primarily uneven-age management techniques, area manag-



17–40mm lens • f/4 • 1/160 sec • ISO 400

ers annually complete 40 to 150 acres of timber stand improvement. Forest management also includes yearly inventory of 1,000 acres of forest as well as timber sales to salvage damaged trees after storms.

The area's other management practices include maintenance of 46 acres of wildlife food plots, an ongoing eradication program for invasive exotic species, and regular controlled burns to improve wildlife habitat, control understory vegetation, and improve oak regeneration.

The main tract of Castor River CA lies 12 miles west of Marble Hill, accessible on both sides of Highway 34. For more information about Castor River CA, including an area map and brochure, visit the website listed below.

—Rebecca Maples, photo by David Stonner



**Recreation opportunities:** Bird watching, bicycling, fishing, hiking, horseback riding, hunting in season, mushroom foraging, shooting range, wildlife viewing

**Unique features:** This area features Missouri's deepest natural pond within more than 9,000 acres of forest, which can be explored using a 19-mile multiuse trail system.

**For More Information** Call 573-290-5730 or visit [mdc.mo.gov/a7842](http://mdc.mo.gov/a7842).



# Kids in Nature

Watch for **box turtles** crossing roads. Keep track of how many you spot this month.



Look for coreopsis flowers blooming on prairies and roadsides.

**Look for caterpillars and draw a picture of one.**



Go for a walk and look for birds' nests. Count how many you find.

Watch for **common nighthawks** over cities at night. You can see male nighthawks take long dives to impress females. When they pull up out of these dramatic dives just before hitting the ground, it makes a loud whirring sound. At dusk look for their erratic, insect-catching flights.



Simple Ideas  
for Family Fun

Birdsong at daybreak is at its peak during the last week of May. Take an early morning walk to enjoy nature's music.

Make a toad house. You can encourage toads to live in your yard by building a toad house. Find a cool moist place in your yard. Dig a shallow hole, lay a clay pot on its side, and bury it halfway in the dirt.

## Kids in Nature Photo Contest!

Break out those cameras and send us your best images of you and your family enjoying the outdoors for our new photo contest. Once again, we will be accepting entries via the online photo sharing service, Flickr. If you are not a member of Flickr, it is easy and free to join. Once you are a member, just navigate to our kids in nature group page: [www.flickr.com/groups/mdc-kids-in-nature](http://www.flickr.com/groups/mdc-kids-in-nature) and submit your photos. MDC staff will select a winner every month and display at [mdc.mo.gov/node/20869](http://mdc.mo.gov/node/20869). All of the monthly winners will appear in the January 2014 issue of the magazine.





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## I Am Conservation

Jeff Ettling, curator of Herpetology and Aquatics at the Saint Louis Zoo, holds an Ozark hellbender in the Zoo's hellbender breeding facility. The facility is part of the Zoo's Wildcare Institute Ron Goellner Center for Hellbender Conservation, of which Ettling is also director. For the past decade, Ettling and his staff have worked with the Conservation Department on propagation efforts for the endangered Ozark Hellbender. "Due to drastic population declines over the last 40 years, the Ozark Hellbender Working Group was established to develop a recovery plan for the species," said Ettling. "It was determined that, without intervention, it was likely that the species would go extinct in the near future." Ettling's personal goal is to do everything he can to ensure that hellbenders remain a part of the Ozark ecosystem. "I spent a good portion of my youth canoeing on the Ozark rivers that hellbenders call home," said Ettling. "I encountered my first hellbender on the Big Piney River in 1982, and I can still remember how excited I was to see this fascinating animal in the wild." — *Photo by David Stonner*